

THE JOHNSON COMPANY, INC.

**Environmental Sciences and Engineering**

April 29, 1996

Mr. Richard Spiese  
Waste Management Division  
Department of Environmental Conservation  
103 South Main Street/West Building  
Waterbury, Vermont 05671-0404

Re: Additional Site Investigation at the Junction Country Store Property,  
Bridgewater, Vermont  
DEC Site #96-1951/JCO No. 3-0306-2.

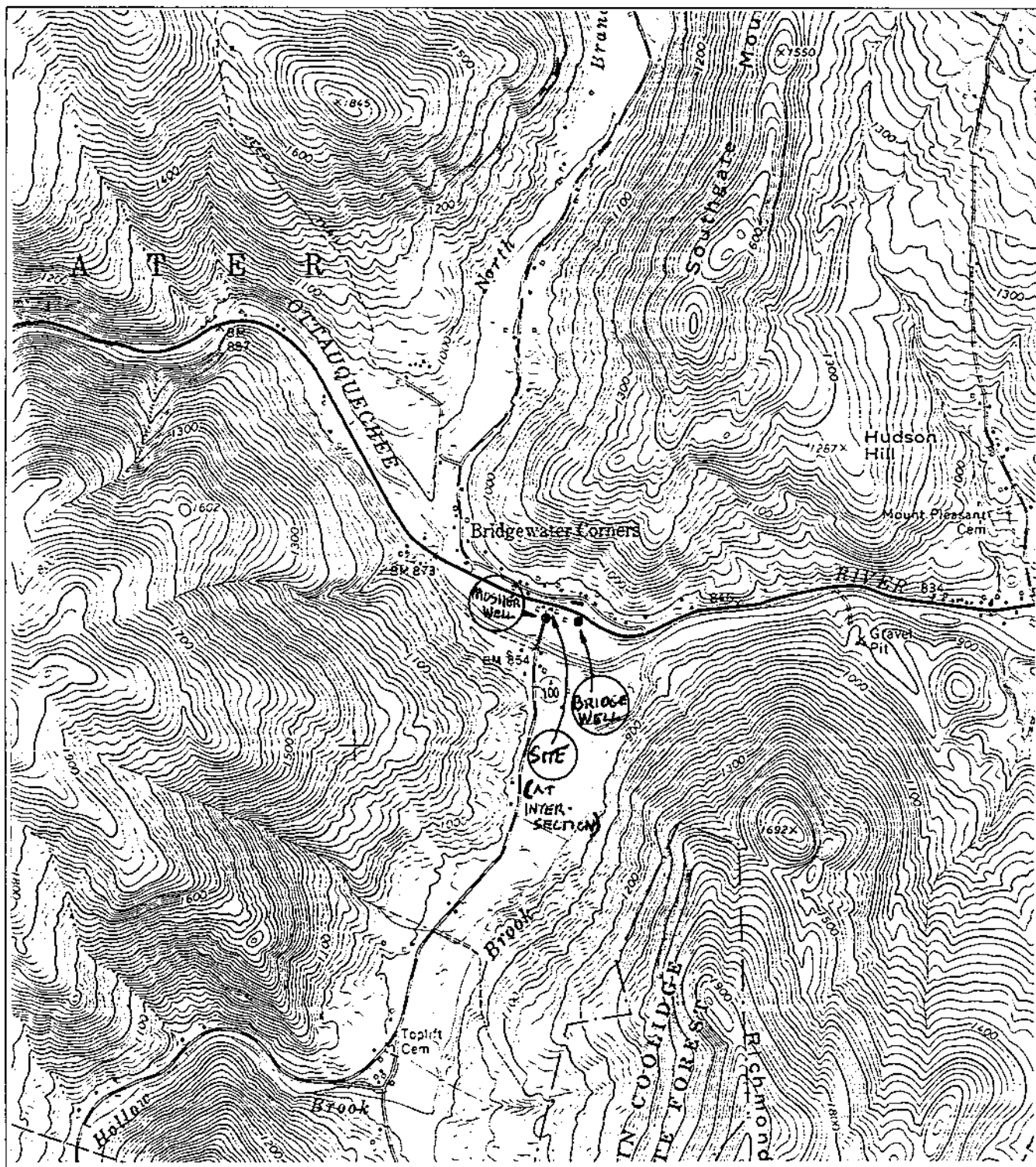
Dear Richard:

In accordance with your March 18, 1996 letter to Ms. Elizabeth Glynn of Ryan, Smith & Carbine, Ltd. of Rutland, Vermont, we have completed an additional site investigation for the referenced Site. Details of the investigation follow.

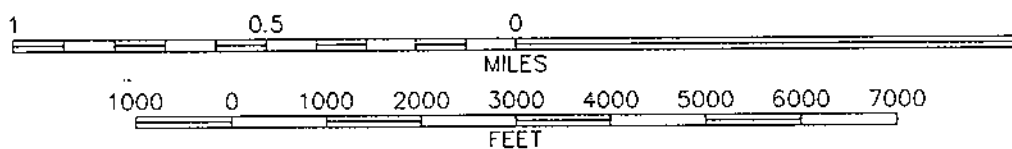
### 1.0 INTRODUCTION

The Junction Country Store is a general store and gasoline vendor located at the junction of Vermont Route 100A and U.S. Route 4 in Bridgewater, Vermont (Figure 1). At the request of our client - First Vermont Bank %Cay, Bell and Companies of West Brattleboro, Vermont - The Johnson Company completed a combined Phase I and II Environmental Site Assessment (ESA) for the Site in January and February 1996. Petroleum contaminated soil and groundwater were discovered during the performance of the ESAs, and the Vermont Department of Environmental Conservation's Waste Management Division was notified of this evidence of a release on the Site. Subsequently, we provided the Waste Management Division's Site Management Section (SMS) with a copy of our February 1996 Phase I and II Environmental Site Assessment report.

In a February 16, 1996 letter from Mr. Chuck Schwer of the SMS to Mr. Robert Lewis - owner of the Junction Country Store - the SMS assigned an Active Hazardous Site number (#96-1951) to the Site and requested that additional investigation work be performed at the Site to further characterize the degree and extent of soil and groundwater contamination, identify the risk posed to sensitive receptors near the Site, and determine the need for remediation and/or long-term monitoring. Because First Vermont Bank is interested in acquiring the Site, The Johnson Company, at the request of Cay, Bell and Companies, prepared a work plan for the bank dated February 23, 1996 to perform work requested by the SMS. Counsel for First Vermont Bank provided a copy of our work plan to the SMS, and the SMS approved the work plan in the above-mentioned March 18, 1996 letter. Site work associated with the additional site investigation was completed by The Johnson Company in April 1996.



NORTH



CONTOUR INTERVAL 20 FEET



BASE MAP : USGS 7.5 Minute Topographic Quadrangle: Plymouth, VT, 1966, photoinspected 1983.

FIGURE 1: Site Location Map  
Junction Country Store  
Bridgewater, Vermont

**THE JOHNSON COMPANY, INC.**  
Environmental Sciences and Engineering  
100 STATE STREET MONTPELIER, VT 05602

## 2.0 SITE INVESTIGATION

The on-site investigation consisted of the following two component tasks:

- 1) Soil coring, soil screening for volatile organic compound (VOC) vapors, monitoring well installation, and groundwater sampling and analysis for petroleum-related aromatic hydrocarbons.
- 2) Receptor survey, VOC vapor screening, and water supply sampling to determine the affect the noted soil and groundwater contamination has on nearby receptors.

Site work was completed on April 1, April 10, and April 19, 1996.

### 2.1 SOIL AND GROUNDWATER INVESTIGATION

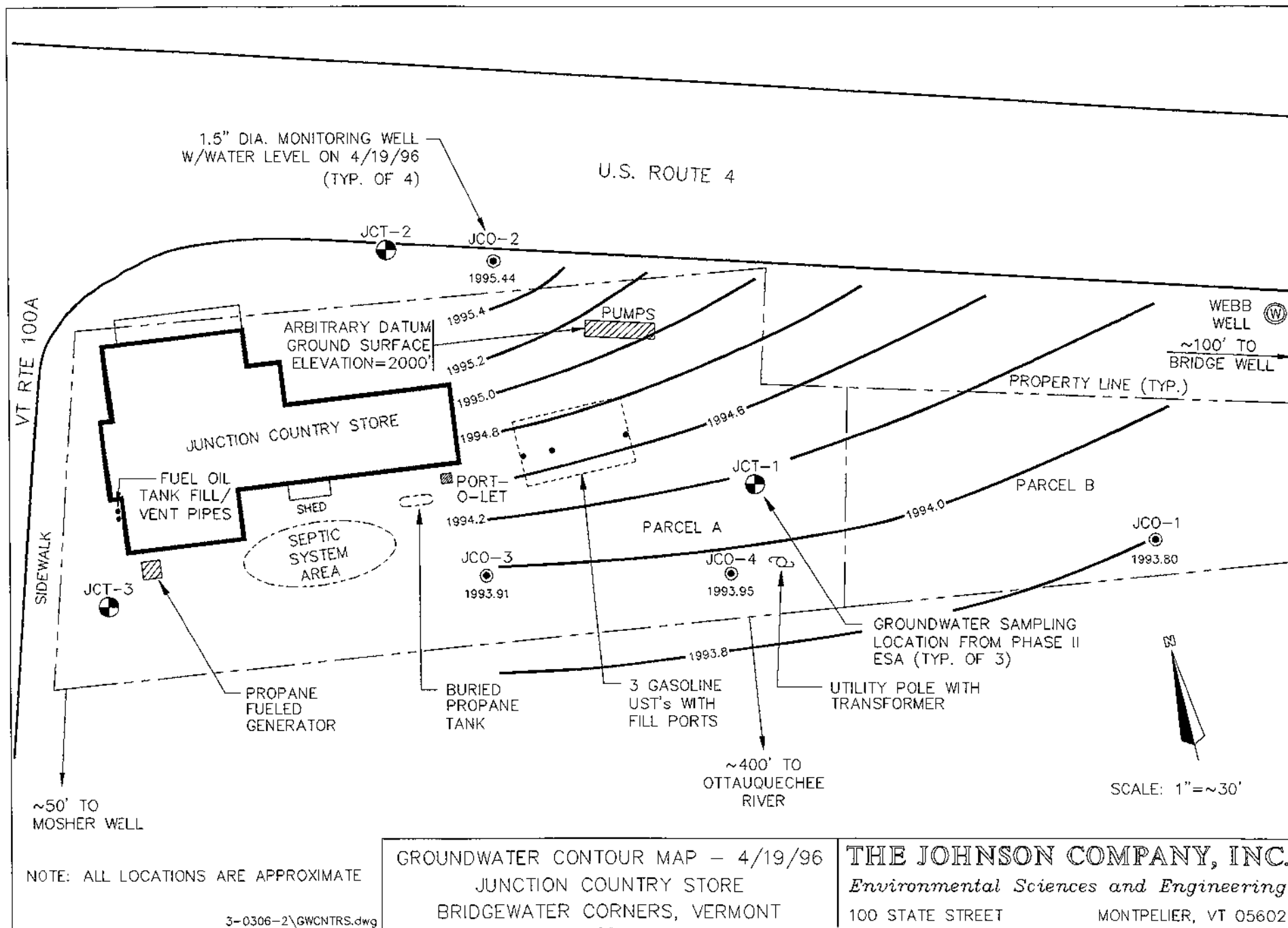
#### 2.1.1 Monitoring Well Installation

The Johnson Company worked with Adams Engineering of Underhill, Vermont to install four 1½-inch diameter groundwater monitoring wells on April 1, 1996. The locations of the four monitoring wells - JCO-1 through JCO-4 - can be noted on Figure 2. Soil cores at each of the four locations were also collected for VOC headspace analysis using a photoionization detector (PID). The soil cores were collected and the monitoring wells were installed using Adams Engineering's pickup truck-mounted vibratory coring rig.

##### 2.1.1.1 *Soil Coring/Overburden Characterization*

Soil cores were collected at each of the four monitoring well installation locations to enable stratigraphic characterization and screening for VOC using a Thermo Environmental Model 580B Organic Vapor Meter PID equipped with a 10.6 eV lamp. The PID was calibrated on-site prior to the collection of on-site readings using 100 parts per million (ppm) isobutylene gas. After calibration, the PID registered 103.7 to 104.7 ppm while reading the calibration gas. Successful PID readings were collected for the soil cores collected at JCO-1 and JCO-2; however, a battery failure on the unit precluded the collection of readings at JCO-3 and JCO-4. At the latter two locations, we relied on odor observations in characterizing the soil cores. Stratigraphic and PID reading information for the soil cores is presented on the monitoring well logs included in Attachment 1.

Soils on the Site are comprised of humid to wet silty sand and sand with rounded and subangular stones to a depth of approximately 5.5 feet. This is underlain by saturated coarse silty sand with many subangular stones (silty gravel) to at least the maximum sample depth of 7.1 feet. These soil types, and the hydrogeologic setting, indicate that the surficial deposits are comprised of recent fluvial deposits deposited during past, higher stages of the Ottauquechee River, and glacial outwash. Depth to groundwater in April 1996 was approximately four feet below ground surface in all the wells.



The bedrock beneath the Site is mapped as the Whetstone Hill member of the Missisquoi formation comprised of mica schist or phyllite (Chang, et. al., 1965), and the depth to bedrock is approximately 45 feet based on well logs for the Mosher and Bridge wells. The logs for these wells, and two wells recently drilled for the Mountain Brewers facility located on the west side of the intersection of Vermont Route 100A and U.S. Route 4, indicate that there is a clay layer above the bedrock surface. The well logs for the two Mountain Brewers wells indicate "gray clay" from 21 to 35 feet for the well near Route 4, and from 36 to 64 feet for the well near the Ottauquechee River. This well log information was obtained from Mr. George Spear, owner of Ottauquechee Well Drilling whose shop is on the north side of Route 4, just east of the Site.

The bedrock beneath the Site is mapped as the Whetstone Hill member of the Missisquoi formation comprised of mica schist or phyllite (Chang, et. al., 1965), and the depth to bedrock is approximately 45 feet based on well logs for the Mosher and Bridge wells. The logs for these wells, and two wells recently drilled for the Mountain Brewers facility located on the west side of the intersection of Vermont Route 100A and U.S. Route 4, indicate that there is a clay layer above the bedrock surface. The well logs for the two Mountain Brewers wells indicate "gray clay" from 21 to 35 feet for the well near Route 4, and from 36 to 64 feet for the well near the Ottauquechee River. This well log information was obtained from Mr. George Spear, owner of Ottauquechee Well Drilling whose shop is on the north side of Route 4, just east of the Site.

#### *2.1.1.2 Monitoring Well Installation Details*

Each of the monitoring wells is constructed of 1½-inch diameter PVC with a five-foot screened section. The annular space around the screen was sandpacked using filter sand and the annular space around the casing was sealed with a bentonite slurry to prevent surface water entry into the wells via conduit flow. After each monitoring well was successfully completed, they were developed by slow-discharge pumping using a peristaltic pump for a minimum of two hours each. Complete details of the monitoring wells are presented on the monitoring well logs included in Attachment 1.

#### *2.1.2 Groundwater Sampling*

Because of the disturbance to the aquifer caused by the monitoring well installation process, the wells were left undisturbed for several days before groundwater sampling occurred. Groundwater samples were collected from monitoring wells JCO-1, JCO-2, and JCO-3 on April 10, 1996. We were unable to sample monitoring well JCO-4 because of a large snow pile over the well's location resulting from plowing after a recent snowstorm. Groundwater from monitoring well JCO-4 was subsequently sampled on April 19, 1996, and the water levels in all the monitoring wells were measured on that date to provide data necessary for the construction of a groundwater contour map (Figure 2).

After each of the two sampling episodes, the groundwater samples were submitted to Scitest Laboratory Services of Randolph, Vermont for analysis using Environmental Protection Agency (EPA) Method 8020 for petroleum-related aromatic hydrocarbons. Table 1 presents data collected at the time of groundwater sampling.

Table 1: Groundwater Sampling Summary - Physical Data				
Well ID	Sample Date	Depth to Water <sup>1</sup> (ft BTOC <sup>2</sup> )	TOC Elevation (ft) <sup>3</sup>	Groundwater Surface Elev. (ft)
JCO-1	4/10/96	3.66	1997.46	1993.80
JCO-2	4/10/96	4.36	1999.80	1995.44
JCO-3	4/10/96	3.88	1997.79	1993.91
JCO-4	4/19/96	3.28 <sup>4</sup>	1997.23	1993.95
<sup>1</sup> Depth to water on 4/19/96 <sup>2</sup> BTOC = below top of casing <sup>3</sup> TOC elevations based on arbitrary datum of 2,000 feet at the west end of the pump island <sup>4</sup> JCO-4 contained light non-aqueous phase liquid (LNAPL) from 3.26 to 3.28 ft BTOC				

## 2.2 RECEPTOR SURVEY AND SAMPLING

The Johnson Company's Phase I and II ESAs at the Site identified neighboring water supply wells that may be sensitive receptors to contamination at the Site. Also, the neighboring Mosher residence (Figure 1) - which also houses the Bridgewater Corners Post Office - has a basement that may be a receptor of soil vapor contamination. Therefore, this investigation included the sampling of three neighboring water supplies and screening of the Mosher basement for the presence of VOC vapors. The Ottauquechee River was also identified as a sensitive receptor. The high flow of the river would likely mask (via dilution) any evidence of contamination from the Site attainable by sampling. Therefore, only a visual inspection of the river bank occurred during this investigation.

### 2.2.1 Water Supply Sampling

During the monitoring well installation on April 1, 1996 and the sampling performed on April 10, 1996, groundwater samples were collected from the water supplies of three nearby residences: the Webb well (Figure 2), the Mosher well (Figure 1), and the Bridge well (Figure 1) to determine if the petroleum contamination on the Site had affected the water quality in these wells. Although this investigation indicates that these three bedrock water supply wells are located hydraulically cross-gradient of the contaminated groundwater on the Site, they are in close enough proximity to the Site to potentially be affected by Site activities. In all cases, samples were collected from taps inside the residences from which the aerators had been removed. The water was allowed to run for approximately five minutes before sample collection. All samples were submitted to Scitest Laboratory Services for analysis using EPA Method 8020.

### 2.2.2 Basement Vapor Screening

The basement of the Mosher residence was screened for VOC vapors using a PID on April 10, 1996. The PID used was a Thermo Environmental Model 580B Organic Vapor Meter equipped with a 10.6 eV lamp. The PID was calibrated in the upstairs portion of the Mosher residence using 100 ppm isobutylene gas. After calibration, the PID registered 99.7 ppm while measuring the calibration gas.

To perform the screening, all walls and corners of the basement were screened with the PID from floor level to the full height of the basement. A small area of exposed soil near the hot water heater was also measured after disturbing it to help release any VOC vapors that may have been present. All PID readings measured during the basement screening were 0.0 ppm.

### 2.2.3 River Bank Inspection

The bank of the Ottauquechee River downgradient from the Site was visually inspected for obvious signs of contamination (e.g., seeps with sheens, sheens in the river water). No readily visible signs of contamination were noted.

## 3.0 RESULTS

The laboratory analytical results for the groundwater samples collected from the on-site monitoring wells and the three neighboring water supply sources are summarized in Table 2. Complete laboratory analytical reports are included in Attachment 2.

<b>Table 2: Groundwater Analytical Results Summary</b> (all results in parts per billion - ppb)					
<b>Well ID</b>	<b>MTBE<sup>1</sup></b>	<b>Benzene</b>	<b>Toluene</b>	<b>Ethylbenzene</b>	<b>Total Xylenes</b>
JCO-1	2	BPQL <sup>2</sup>	BPQL	BPQL	BPQL
JCO-2	BPQL	BPQL	2	BPQL	BPQL
JCO-3	2870	1470	7210	1260	5940
JCO-4	3590	1920	11,900	2440	12,100
Webb Well	BPQL	BPQL	BPQL	BPQL	BPQL
Mosher Well	BPQL	BPQL	BPQL	BPQL	BPQL
Bridge Well	BPQL	BPQL	BPQL	BPQL	BPQL
Groundwater Standard Concentration	40 <sup>3</sup>	1.0 <sup>3</sup> 5.0 <sup>4</sup>	1000 <sup>4</sup>	700 <sup>4</sup>	10,000 <sup>4</sup>
<sup>1</sup> MTBE = methyl tertiary butyl ether <sup>2</sup> BPQL = below practical quantitation limit, 1 ppb <sup>3</sup> Vermont Health Advisory (HA) <sup>4</sup> Federal Maximum Contaminant Level (MCL)					

As can be noted, petroleum contaminated groundwater was identified in an area hydraulically downgradient of the pump island and the three USTs existing on the Site. In the vicinity of monitoring well JCO-4, the solubility limit for the contamination has been exceeded as evidenced by the existence of 0.02 feet of free product in this well on April 19, 1996. Although soil contamination was noted at the location of monitoring well JCO-2 - as evidenced by elevated PID readings - contamination of groundwater by petroleum-related VOC at this location is minimal. Groundwater flow across the eastern portion of the Site is southward at an average gradient of 0.018 ft/ft. Groundwater standards for benzene, toluene, ethylbenzene, xylenes (BTEX) and for MTBE have all been exceeded in groundwater samples collected from monitoring wells JCO-3 and JCO-4, except for total xylenes in monitoring well JCO-3.

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this investigation, and the results of our Phase II ESA, the high levels of contamination noted in the vicinity of monitoring wells JCO-3 and JCO-4 and sampling location JCT-1 appear to be the result of an on-site release. The low levels of contamination noted in the vicinity of monitoring well JCO-2 and sampling point JCT-2 indicate that, although the groundwater is minimally contaminated in the hydraulically upgradient portion of the Site, this does not account for the much higher concentrations of contaminants noted in the groundwater hydraulically downgradient of the pump island and the USTs. It is not known whether the contamination noted on the Site is a result of an on-site spill of petroleum products or is the result of a former or ongoing release from the UST and/or associated piping systems that were installed in 1983. As discussed in our Phase I and II ESA report, the USTs and associated piping systems were tightness tested in December 1994 by Eastern Analytical, Inc. of Concord, New Hampshire. All three USTs and associated lines passed the tightness tests at that time. No tightness testing has occurred since that time.

The Vermont UST Regulations (August 1991) stipulate that all USTs must have acceptable overfill and corrosion protection systems in-place by June 30, 1998. For USTs older than ten years, such as those at the Site, the USTs must be internally inspected for corrosion and leaks before a corrosion protection system can be installed. If the USTs exhibit signs of corrosion, they must be removed and replaced. Because of the shallow groundwater conditions noted at the Site, it is likely that the three USTs have been repeatedly exposed to conditions conducive to corrosion since their installation in 1983.

The Johnson Company recommends, if First Vermont Bank desires to retain the USTs and associated piping systems at the property, that the USTs and piping systems be tightness tested to the maximum precision possible to determine if there are any leaks currently in the system. Any leaks detected in the USTs or piping systems should be immediately repaired. All required upgrades to the USTs must be completed by June 30, 1998.

On the other hand, if First Vermont Bank has does not want to maintain the UST system on the Site, we recommend that the USTs and associated piping systems and gasoline pumps be removed from the Site as soon as practicable. This action would essentially remove one of the likely sources of the contamination noted in the groundwater at the Site. The UST closures must be performed in accordance with the Vermont UST regulations. If petroleum-contaminated soil is noted during the UST closures, it should be properly removed from the Site as the contaminated soil can act as an ongoing source of groundwater contamination.



Mr. Richard Spiese  
Waste Management Division  
Department of Environmental Conservation  
Waterbury, Vermont

April 29, 1996  
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In either case, we recommend continued monitoring of the groundwater on the Site to help determine any trends (either upwards or downwards) in the concentrations of petroleum-related VOC. Because the neighboring water supply wells do not appear to be threatened by the groundwater contamination noted on the site; both due to their locations upgradient and cross-gradient of the contaminated groundwater area, and the clay stratum noted in the logs for nearby drilled wells; these wells do not need to be included in the monitoring program. We recommend that groundwater samples be collected on a quarterly basis as the nearby water supply wells do not appear to be at risk from the noted groundwater contamination. All samples should be analyzed using EPA Method 8020 plus MTBE, and a duplicate and trip blank should be included during each sampling episode for quality assurance/quality control (QA/QC) purposes.

### 5.0 REFERENCES

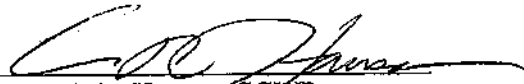
Chang, et.al., Bedrock Geology of the Woodstock Quadrangle, Vermont, Vermont Geological Survey Bulletin No. 29, 1965

Please call with any questions you may have concerning this Site. We look forward to your response to this report.

Respectfully Submitted,

THE JOHNSON COMPANY, INC.

By:



Eric R. Hansen, CGWP  
Project Hydrologist

enclosure

**Attachment 1**  
**Monitoring Well Logs**

WASTE MANAGEMENT  
DIVISION

MAY 6 10 18 AM '96

SITE # 96-1951

Richard - Here are the  
missing attachments for  
the April 29, 1996 site  
investigation report. We  
apologize for any inconvenience.

Eric Hanson  
Trite Johnson Co., Inc.

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The Johnson Company, Inc.  
Environmental Sciences and Engineering  
100 State Street  
Montpelier, Vermont 05602

DRILLING LOG  
WELL # JCO-1

Project: Junction Country Store  
Location: Bridgewater, Vermont  
Job # 3-0306-2  
Logged By: ERH  
Date Drilled: 4/01/96  
Driller: Adams Engineering  
Drill Method: Vibratory Coring

Casing Type: PVC  
Casing Diameter: 1.5 in.  
Casing Length: 4.0 ft.  
Screen Type: PVC  
Screen Diameter: 1.5 in.  
Screen Length: 5.0 ft.  
Slot Size: .010"

Total Pipe: 9.0 ft.  
Stick Up: -0.5 ft.  
Total Hole Depth: 10.0 ft.  
Well Guard Length: 1.0 ft.  
Initial Water Level: 4.2 ft.  
Surface Elevation: -  
T.O.C. Elevation: 1997.46

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0		Well Guard			
		Cement			
1					
2		Bentonite			
3				3.0	2-4.5': brn, hum-damp, fri, silty sand w/greater component of v fn sand w/depth.
4					
5				3.0	5-5.5': brn, wet, fri, cse silty sand w/rounded stones.
6				3.0	
7		Sand Pack			5.5-7': brn, sat, loose, silty sand w/many subang stones.
8		Screen			
9					
10					
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.  
Environmental Sciences and Engineering  
100 State Street  
Montpelier, Vermont 05602

DRILLING LOG  
WELL # JCO-2

Project: Junction Country Store  
Location: Bridgewater, Vermont  
Job # 3-0306-2  
Logged By: ERH  
Date Drilled: 4/01/96  
Driller: Adams Engineering  
Drill Method: Vibratory Coring

Casing Type: PVC  
Casing Diameter: 1.5 in.  
Casing Length: 4.0 ft.  
Screen Type: PVC  
Screen Diameter: 1.5 in.  
Screen Length: 5.0 ft.  
Slot Size: .010"

Total Pipe: 9.0 ft.  
Stick Up: -0.5 ft.  
Total Hole Depth: 10.0 ft.  
Well Guard Length: 1.0 ft.  
Initial Water Level: 4.9 ft.  
Surface Elevation: -  
T.O.C. Elevation: 1999.80

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0		Well Guard			
		Cement			
1		Backfill			
2		Bentonite		5.4	2-2.8': brn, hum, loose, med slty snd w/subang stones.
3				86	
				34	2.8-3.3': dk gry, hum, fri, med slty snd.
4				253	
5				196	3.3-3.8': lt brn, hum, loose, med snd w/few rounded stones.
				203	
6				7.0	3.8-4.8': dk gry, hum, fri, sndy slt w/orange-rimmed mottles.
7		Sand Pack			4.8-5': lt brn, fri, damp, sndy slt.
8		Screen			5-6': olve brn, fri, sat, sndy slt.
9					6-7': brn, loose, sat, cse slty snd w/many subang stones.
10					
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.  
Environmental Sciences and Engineering  
100 State Street  
Montpelier, Vermont 05602

# DRILLING LOG

## WELL # JCO-3

Project: Junction Country Store  
Location: Bridgewater, Vermont  
Job # 3-0306-2  
Logged By: ERH  
Date Drilled: 4/01/96  
Driller: Adams Engineering  
Drill Method: Vibratory Coring

Casing Type: PVC  
Casing Diameter: 1.5 in.  
Casing Length: 3.6 ft.  
Screen Type: PVC  
Screen Diameter: 1.5 in.  
Screen Length: 5.0 ft.  
Slot Size: .010"

Total Pipe: 8.6 ft.  
Stick Up: -0.5 ft.  
Total Hole Depth: 10.0 ft.  
Well Guard Length: 1.0 ft.  
Initial Water Level: 4.4 ft.  
Surface Elevation: -  
T.O.C. Elevation: 1997.79

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0		Well Guard			
		Cement			
1		Bentonite			
2		Backfill		ptrlm odor	2-2.5': grysh brn, hum, v fri, slty snd w/many subang stones.
3				ptrlm odor	
4				ptrlm odor	2.5-3.7': olve brn, damp, fri, slty snd.
5				sptic odor	
				sptic odor	3.7-4.5': lt olve brn, hum, fri, slty snd.
6		Sand Pack		sptic odor	
7		Screen		sptic odor	4.5-5': brnsh gry, hum, v fri, fn-med snd.
8					5-5.3': olve brn, damp, fri, slty snd w/small subang stones.
9					5.3-6.7': dk gry, sat, loose, cse slty snd w/many subang stones.
10					6.7-7.1': olve brn, hum, fri, slty snd w/rounded stones.
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.  
Environmental Sciences and Engineering  
100 State Street  
Montpelier, Vermont 05602

DRILLING LOG  
WELL # JCO-4

Project: Junction Country Store  
Location: Bridgewater, Vermont  
Job # 3-0306-2  
Logged By: ERH  
Date Drilled: 4/01/96  
Driller: Adams Engineering  
Drill Method: Vibratory Coring

Casing Type: PVC  
Casing Diameter: 1.5 in.  
Casing Length: 3.5 ft.  
Screen Type: PVC  
Screen Diameter: 1.5 in.  
Screen Length: 5.0 ft.  
Slot Size: .010"

Total Pipe: 8.5 ft.  
Stick Up: -0.4 ft.  
Total Hole Depth: 10.0 ft.  
Well Guard Length: 1.0 ft.  
Initial Water Level: 3.7 ft.  
Surface Elevation: -  
T.O.C. Elevation: 1997.23

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0		Well Guard			
		Cement			
1					
2		Bentonite			
3				no odor	2-2.6': brn, hum, fri, silty snd.
4				no odor	2.6-3.5': lt brn, hum, fri, silty snd.
5				no odor	3.5-4': lt brn, hum, fri, silty fn-med snd.
6		Sand Pack		no odor	4-5': brn, damp, fri, silty med snd w/mottles.
7		Screen		ptrim odor	5-5.7': lt gry, weathered, cemented fn snd w/small subang pebs.
8					5.7-7': brn & brnsh gry, sat, loose, cse silty snd w/many subang stones. Petrol odor & sheen.
9					
10					
11					
12					
13					
14					
15					
16					
17					

## **Attachment 2**

### **Laboratory Analytical Results**

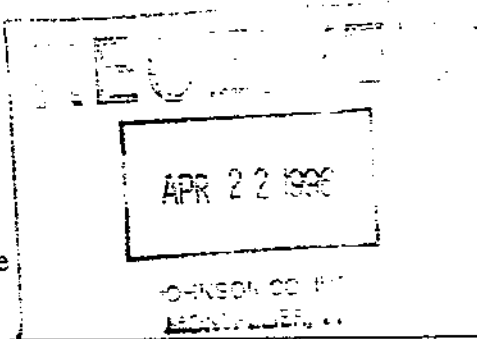


30306-2  
**SCITEST**  
LABORATORY SERVICES

# ANALYTICAL REPORT

P.O. Box 339  
Randolph, Vermont 05060-0339  
(802) 728-6313

The Johnson Company  
100 State Street  
Montpelier, VT 05602



Work Order No.: 9604-00998

Project Name: Junction Country Store  
Customer Nos.: 078611

Date Received: 4/10/96  
Date Reported: 4/18/96

Sample Desc.: JCO-Bridge Trailer

Sample Date: 4/10/96

Collection Time: 11:10

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	4/16/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	4/16/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Toluene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/16/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Surrogate: 8020				JPM	4/16/96
***Bromofluorobenzene-8020		99	% Recovery	JPM	4/16/96

Sample Desc.: JCO-MW JCO-1

Sample Date: 4/10/96

Collection Time: 13:55

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	4/16/96
Methyl Tertiary Butyl Ether	EPA 8020	2	ug/L	JPM	4/16/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Toluene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/16/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Surrogate: 8020				JPM	4/16/96
***Bromofluorobenzene-8020		99	% Recovery	JPM	4/16/96



## ANALYTICAL REPORT

Project Name: Junction Country Store  
Project No.: 078611

Work Order No.: 9604-00998

Sample Desc.: JCO-MW JCO-2		Collection Time: 14:05			
Sample Date: 4/10/96		Results	Units	Analyst	Analysis Date
Test Performed	Method				
Aromatic Volatile Organics	EPA 8020			JPM	4/16/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	4/16/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Toluene	EPA 8020	2	ug/L	JPM	4/16/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/16/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Surrogate: 8020				JPM	4/16/96
***Bromofluorobenzene-8020		98	% Recovery	JPM	4/16/96

Sample Desc.: JCO-MW JCO-3		Collection Time: 14:15			
Sample Date: 4/10/96		Results	Units	Analyst	Analysis Date
Test Performed	Method				
Aromatic Volatile Organics	EPA 8020			JPM	4/16/96
Methyl Tertiary Butyl Ether	EPA 8020	2870	ug/L	JPM	4/16/96
Benzene	EPA 8020	1470	ug/L	JPM	4/16/96
Toluene	EPA 8020	7210	ug/L	JPM	4/16/96
Ethyl Benzene	EPA 8020	1260	ug/L	JPM	4/16/96
Total Xylenes	EPA 8020	5940	ug/L	JPM	4/16/96
Chlorobenzene	EPA 8020	< 500	ug/L	JPM	4/16/96
1,2-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/16/96
1,3-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/16/96
1,4-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/16/96
Surrogate: 8020				JPM	4/16/96
***Bromofluorobenzene-8020		100	% Recovery	JPM	4/16/96

Sample Desc.: JCO-Trip Blank		Collection Time: 0:00			
Sample Date: 4/10/96		Results	Units	Analyst	Analysis Date
Test Performed	Method				
Aromatic Volatile Organics	EPA 8020			JPM	4/16/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	4/16/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96

## ANALYTICAL REPORT

Project Name: Junction Country Store  
Project No.: 078611

Work Order No.: 9604-00998

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Sample Desc.: JCO-Trip Blank	Collection Time: 0:00				
Sample Date: 4/10/96	Results	Units	Analyst	Analysis Date	
Test Performed	Method				
Toluene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/16/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/16/96
Surrogate: 8020				JPM	4/16/96
***Bromofluorobenzene-8020		97	% Recovery	JPM	4/16/96

BPQL = Below Practical Quantitation Limit; 1 ug/L

Authorized by: *Patrick Lamotte*



**SCITEST**  
LABORATORY SERVICES

ANALYTICAL REPORT

P.O. Box 339  
Randolph, Vermont 05060-0339  
(802) 728-6313

RECEIVED

The Johnson Company  
100 State Street  
Montpelier, VT 05602

JOHNSON COMPANY  
MONTPELIER

Work Order No.: 9604-01193

Project Name: Country Jct. Store 3-0306-2  
Customer Nos.: 078611

Date Received: 4/22/96  
Date Reported: 4/23/96

Sample Desc.: JCO\Country Jct.-MW 4

Sample Date: 4/19/96

Collection Time: 15:30

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	4/22/96
Methyl Tertiary Butyl Ether	EPA 8020	3590	ug/L	JPM	4/22/96
Benzene	EPA 8020	1920	ug/L	JPM	4/22/96
Toluene	EPA 8020	11900	ug/L	JPM	4/22/96
Ethyl Benzene	EPA 8020	2440	ug/L	JPM	4/22/96
Total Xylenes	EPA 8020	12100	ug/L	JPM	4/22/96
Chlorobenzene	EPA 8020	< 500	ug/L	JPM	4/22/96
1,2-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/22/96
1,3-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/22/96
1,4-Dichlorobenzene	EPA 8020	< 500	ug/L	JPM	4/22/96
Surrogate: 8020				JPM	4/22/96
***Bromofluorobenzene-8020		108	% Recovery	JPM	4/22/96

Authorized by:

*Robert Lannithy*

**SCITEST**

LABORATORY SERVICES

## ANALYTICAL REPORT

P.O. Box 339  
Randolph, Vermont 05060-0339  
(802) 728-6313The Johnson Company  
100 State Street  
Montpelier, VT 05602

3-0306-2

Work Order No.: 9604-00861

Project Name: Junction Country Store  
Customer Nos.: 078611Date Received: 4/02/96  
Date Reported: 4/04/96

Sample Desc.: JCO-Webb

Sample Date: 4/01/96

Collection Time: 15:15

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	4/03/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	4/03/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Toluene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/03/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Surrogate: 8020				JPM	4/03/96
***Bromofluorobenzene-8020		97	% Recovery	JPM	4/03/96

Sample Desc.: JCO-P.O.

Sample Date: 4/01/96

Collection Time: 15:45

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	4/03/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	4/03/96
Benzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Toluene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	4/03/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	4/03/96
Surrogate: 8020				JPM	4/03/96
***Bromofluorobenzene-8020		98	% Recovery	JPM	4/03/96

BPQL = Below Practical Quantitation Limit; 1 ug/L